Office of Stockpile Management

Abatement Program for the Control and Elimination of Polychlorinated Biphenyls (PCBs)

VERSION: 1985

OFFICE OF STOCKPIKE MANAGEMENT

ABATEMENT PROGRAM

FOR THE

CONTROL AND ELIMINATION OF POLYCHLORINATED BIPHENYL (PCB'S)

FEDERAL PROPERTY RESOURCES SERVICE
OFFICE OF STOCKPILE MANAGEMENT

Polychlorinanted Biphenyl (PCB) Electrical Equipment Abatement Program

Purpose: To implement a "Non PCB" Facility Profile in FY 86

Background: In 1979 the Environmental Protection Agency (EPA) promulgated a PCB ban rule, which established numerous regulations and exclusions in the use of electrical equipment containing PCB's. Since that time, several amendments have been added to the regulations to further restrict their use and provide more protection for the environment and human health. In light of these continuing regulations, the Office of Stockpile Management in November 1984 initiated a survey to inventory all oil filled electrical equipment (transformers, capacitors, oil switches, etc.). This inventory phase was followed up in March 1985 with a second phase to sample and analyze the inventoried equipment, to determine and document whether or not they contain PCB's. The sample and analysis phase is expected to be completed by October 1985.

Program Outline: The Office of Stockpile Management PCB Abatement Program shall consist of the following action phases which are to be systematically implemented in order to achieve the stated objectives:

* Inventory
* Sample/Analysis
* Label/Identify
* Implement Quarterly Inspection
* Notify Local Fire Department
* Temporary Storage of PCB Equipment
* Contract For Electrical Utility Survey
* Removal/Replacement on a Worst Case Basis
* Retention of Records

Inventory Phase

Implementation of this phase is outlined in an instructional directive issued to the Zone Offices dated November 14, 1984, subject "Inspection and Inventory Update of Electrical Equipment-Oil Filled Transformers/Capacitors".

Sampling/Analysis Phase

Implementation of this phase is outlined in an instructional directive issued to the Zone Offices on March 4, 1985, subject, "Analytical Testing of Electrical Transformers/Equipment".

Labeling/Identification Phase

For those pieces of electrical equipment that have been analytically tested and determined to contain PCB's in concentrations in excess of 50 PPM(parts per million) the following steps must be taken:

1. All extraneous combustible material shall be removed from the PCB transformer room/vault.

2. Each PCB or PCB contaminated transformer, capacitor, oil switch shall be conspiciously labeled and identified. For pole mounted transformers and capacitors spray painting the bottom of the equipment with yellow paint would allow visible identification from the ground. Labels shall also be used to comply with EPA requirements.(see enclosure 5)

3. If pole mounted transformers do not contain PCB's remove the PCB tags previously placed on the poles, by Public Building Services representatives.This action should be taken for all other electrical equipment improperly labeled. The intent of this identification phase is to know exactly where and how many pieces of electrical equipment contain PCB's.

Quarterly Inspection

1. When all electrical equipment containing PCB's are properly labeled and identified, each depot shall initiate a PCB quarterly monitoring/inspection program. This will involve a visual inspection of each piece of electrical equipment that contains PCB's whether in use or in storage. A GSA Form 1738 Preventive Maintenance Control Card and GSA Form 1739 Equipment History Card shall be established for each piece of electrical equipment that contains PCB's.

   NOTE: (The electrical equipment that does not contain PCB's will remain on the annual inspection schedule).

2. The information on the PCB electrical equipment quarterly inspections shall be recorded on the above listed forms and shall include:

   A. The Location of the PCB equipment
   B. The Date of the visual inspection
   C. The person performing the inspection
   D. The date of any leak discovered
   E. The location of the leak on the piece of electrical equipment
   F. The date, description and results of any cleanup or containment
   G. The date and description of any repairs
   H. The dates and inspections required for any uncorrected leaks

Leak Detection,Elimination and Containment

If a leak is discovered the Depot Manager shall immediately notify the Zone Manager who in turn will notify DMC. This verbal report shall be followed by a written report to DMC for file documentation. Immediate action shall be taken to stop the leak, clean up the spill (within 48 hours) and contain any active leak. Once a leak is detected and still remains active, daily inspections will be made to ensure containment of the PCB's. Efforts should be made to repair or decommission equipment with active leaks in order to completely eliminate the leak. DMC should be contacted for any additional guidance or assistance necessary, to accomplish this important action.

Fire Department Notification

As of December 1, 1985, all identified PCB containing equipment must be registered with the local Fire Department providing services to that depot. Copies of correspondence with local Fire Departments should be forwarded to DMC for inclusion in their master inventory.

Temporary Storage of PCB Equipment

Depot Managers shall make a careful review of all past and/or present storage areas, where PCB electrical equipment is or had been stored, to ensure compliance with EPA regulations(40 CFR part 761,subpart D). This should be accomplished as soon as possible and all findings should be discussed with DMC. Through these discussions, plans for corrective action can be formulated.

Electrical Utility Survey

In order to achieve the most cost effective electrical equipment removal/replacement objective, studies should be undertaken by qualified electrical firms or experts in order to determine specific current and future electrical equipment needs of each depot. These studies would reveal the existence of excess equipment which could be disposed of.

These studies may be performed by Depots, by Zone Offices, by geographical areas, or centrally, by the Washington Office. How these services are acquired will depend upon the circumstances peculiar to each Zone. Thus, each Zone Manager shall develop a plan of action after discussion with DMS and DMC.

These determinations should be made as soon as possible so that procurement action may be initiated without delay. The results of these studies are critically needed for the formulation of the equipment removal and replacement phase of the PCB abatement program.

Removal and Replacement Phase

Removal and replacement of PCB electrical equipment should proceed on a site by site, worst case basis (i.e. those PCB transformers that are leaking will be replaced first). Transformers determined to contain PCB's in excess of 500 parts per million (PPM) will be next and so on down to non PCB electrical equipment (less than 50ppm).

> Note: Once removed, under no circumstances shall a piece of electrical equipment that contains PCB's be reinstalled.

Recordkeeping and Retention of Records

Records of inspection and maintenance history of PCB transformers shall be maintained for at least three (3) years after disposal/destruction. These records shall also contain State Manifest, Disposal certificates, Certificate of Destruction, etc. All pertinent information regarding the PCB transformer must be available to EPA upon request.

DMC and Zone 1 have developed the work statements, specifications, and contract provisions covering the specialized areas of removal, decontamination, disposal and replacement of PCB transformers. Copies of these will be forwarded to all Zones for "tailoring" to their specific needs.

To assist in the implementation of this program, the following directives are included as enclosures:

* Personnel Protective Equipment
* Cleanup Procedures
* What To Do In Case Of A Fire Involving PCB's
* Temporary PCB Storage Areas
* PCB Label

Any questions regarding this program should be discussed with DMS and DMC as appropriate.

ENCLOSURE NO. 1

PERSONNEL PROTECTIVE EQUIPMENT

During the course of the quarterly PCB inspections no personnel protective equipment (PPE) besides rubber gloves and a flashight will be necessary. However, the employee performing the inspection should thoroughly wash his/her hands, face, and exposed skin prior to eating, drinking or smoking. During a PCB spill cleanup, however, the following PPE is required, as a minimum.

1. A dual cartridge, ½ face mask respirator with organic vapor cartridges is mandatory. If the spill is large and the spill area is confined with little or no exhaust ventilation, Self-Contained Breathing Apparatus is mandatory:

   Note: Since no one within OSM has been trained in the proper use of Self-Contained Breathing Apparatus, incidents requiring this level of protection must be performed by contract.

2. Viton rubber gloves with cotton inserts.

3. Saranac coated Tyvec disposable coveralls with hood and booties.

4. Portable eye wash

5. CO2 fire extinguisher.

6. First aid kit.

Prior to any actual spill cleanup involving PCB's both the Zone Office and DMC shall be notified to discuss procedures and the level of protection that will be required to protect our employees and the environment.

ENCLOSURE NO. 2

SPILL PREVENTION AND CLEAN-UP

All Stockpile facilities that have oil filled electrical equipment containing PCB's shall establish spill kits and the following procedures for the clean-up of PCB spills.

1. Set up a PCB Spill Kit. The spill kit should include the following items and be located in an accessible area.

   a. All appropriate PPE as outlined in enclosure 1.

   b. (2) 55 gal. disposal drums with lids.

   c. Absorbent material (Speedy dry or Vermiculite)

   d. 5 gal. can of Kerosene

   e. 5 gal. can of powdered Trisodium phosphate

   f. Rags

   g. (2) Shovels

   h. (2) Brooms

   i. Flashlight

   j. CO_2 fire extinguisher

   k. Portable eyewash

   l. Log sheet to record incident, time, employees involved, action taken, etc.

2. Prior to entry into the spill area, don all appropriate protective equipment.

3. De-energize electrical unit, if possible. If unit remains energized exercise extreme care around live electrical components.

4. Spilled PCB's must be contained on site where the spill occurred. PCB's must be kept from entering floor drains, storm sewers, wells, water systems and navigable waterways.

5. Secure the spill area from non essential personnel and barricade the area by roping the area off and posting signs.

6. Ventilate the area, as much as possible, to dilute possible high concentrations of PCB's.

7. Try to identify and determine the amount of PCB's, the type of equipment and any other potential hazards within the spill area. (i.e. fire hazard, open flames, confined spaces, etc.)

8. Use the absorbent material to dike the spill area to prevent the spread of material.

9. If the spilled amount of PCB's exceeds the "RQ"(Reportable Quantity- 10 lbs.or 4.54 Kg) immediately notify the Zone Office, who in turn shall notify DMC and the National Response Center at (800) 442-8802 and report the spill.

SPILL CLEAN-UP

1. If the PCB fluid has spilled or leaked on solid ground (concrete, asphalt etc.) dike the area and absorb the liquid with the absorbent material. Shovel and sweep up the absorbent material placing it in a 55 gal. waste disposal drum. Repeat this process until all the liquid has been collected.

2. Once the absorbent material has been collected and placed in the disposal drum, soak the spill area using the solvent and allow to soak 15 - 20 minutes. Absorb the solvent with absorbent material, sweep up the material and place it in the waste disposal drum. Repeat this process a second time.

3. Now using a clean rag and broom, wash and scrub the area with the solvent. Soak up residual liquid with the rag and dispose of the rag with other waste. Repeat this procedure three times, using a clean rag each time. Discard the rags and broom head with the PCB waste material.

4. Repeat this wash down procedure again, now using a 3 to 1 solution of TriSodium phospate and water. Be sure to use a clean rag for each of three consecutive wash downs. Dispose of waste material as previously outlined.

   Note: If the spill is on very porous asphalt it may be easier to remove (excavate)the entire area of the spill and place in 55 gal drum for disposal.

5. For continued unrestricted use of the spill area, apply 2 coats of a high-solid epoxy resin paint.

6. If a spill occurs on soil, gravel or other porous material, all soil 6 inches down and 6 inches around the spill should be excavated and placed in a 55 gal drum for disposal.

7. Soil samples should then be taken to ensure all the PCB contamination has been removed.

Note: An incident as noted in items 6 and 7 should be discussed with DMC for specific sampling procedures and analytical requirements to comply with both State and Federal EPA.

DISPOSAL OF WASTE

1. All the waste (absorbent, rags, clothing, soil etc.) must be collected in a 55 gal drum with lid and labelled as PCB contaminated waste. The Drum should be stored in a secured area in accordance with EPA requirements. DMC should be contacted for specific disposal, labelling, and manifesting requirements for proper disposal of this material to ensure all the necessary documentation is available for an audit review.

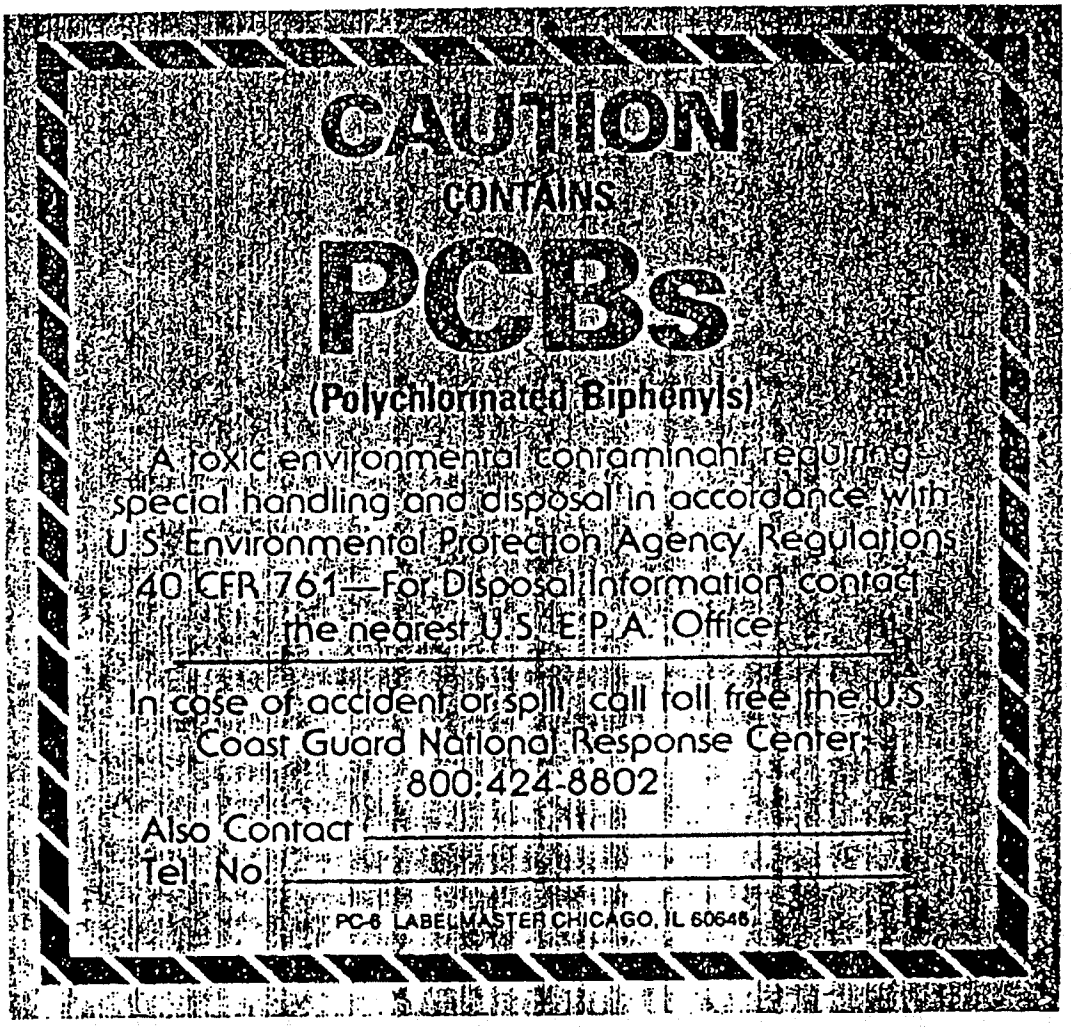
ENCLOSURE NO. 4

FIRES INVOLVING PCB ELECTRICAL EQUIPMENT

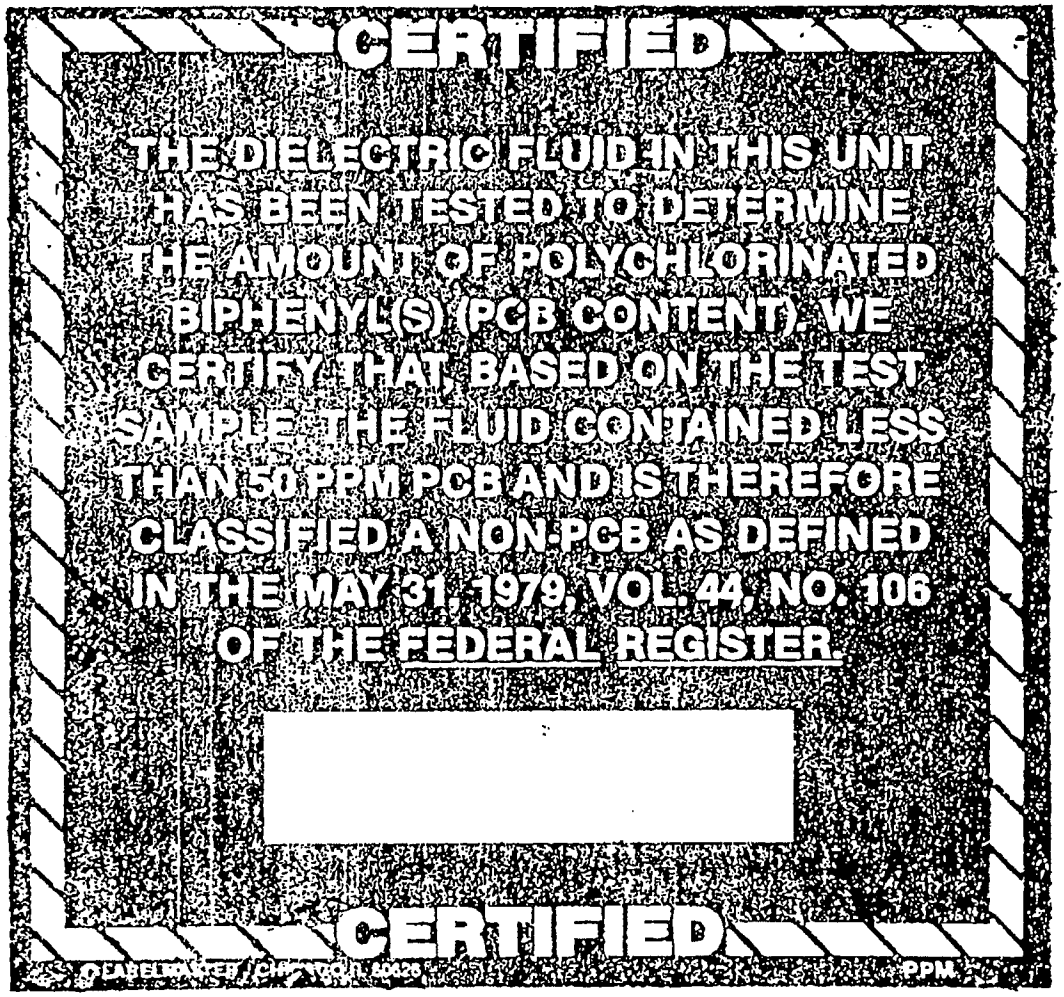
If a PCB transformer or other piece of electrical equipment containing PCB's is involved in a fire, the Depot Manager shall immediately notify the Zone Manager who in turn will notify DMC and the National Response Center at 1(800)424-8802. This verbal correspondence will be followed up in writing to DMC with copies to the Zone Manager.

In addition, where there is potential for incomplete PCB combustion products to be released into floor drains or the local sewer and water system the local water treatment system and sewer system operators shall be notified as soon as possible.

Depot personnel with approved PCB protection shall make every effort to block floor drains and sewer openings in the fire vicinity and contain any water runoff resulting from fire fighting.


CAUTION
CONTAINS
PCBs
(Polychlorinated Biphenyls)
A toxic environmental contaminant requiring special handling and disposal in accordance with U.S. Environmental Protection Agency Regulations 40 CFR 761—For Disposal Information contact the nearest U.S. E.P.A. Officer
In case of accident or spill call toll free the U.S. Coast Guard National Response Center 800-424-8802
Also Contact
Tel No
PC-6 LABELMASTER CHICAGO, IL 60645

ENCLOSURE 5C



NON-PCB LABEL

ENCLOSURE 5D